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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,465	04/01/2002	Homaira Naseem	1207SUS03	4143

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EXAMINER
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SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/936,465

**Applicant(s)**

NASEEM, HOMAIRA

**Examiner**

Callie E. Shosho

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 6, 10 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 10, 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. All outstanding rejections are overcome by applicant's amendment filed 4/23/04.

The new grounds of rejection as set forth below are necessitated by applicant's amendment and thus, the following action is final.

**Claim Rejections - 35 USC § 112**

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 6, 10, and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

(a) Claims 1, 6, 10, and 14 have each been amended to recite that the "layered montmorillonite clay renders said sealant layer substantially gas impermeable". It is the examiner's position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the cited phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163. Applicant has not pointed to any portion of the specification, and examiner has not found any support for this phraseology in the specification as originally filed.

While page 2, lines 1-7 of the present specification discloses that montmorillonite clay improves the barrier properties of the sealant layer and decreases the permeability of the sealant layer to oxygen and carbon dioxide and the examples of the present specification show that the addition of montmorillonite clay decreases oxygen permeability of the sealant layer, there is no support in the specification as originally filed for the recitation that the “layered montmorillonite clay renders said sealant layer substantially gas impermeable”. While the instant specification discloses that the barrier properties of the sealant layer are improved and the gas permeability decreased, this does not provide support for the recitation that the sealant layer is “substantially gas impermeable”. That is, the disclosure that the permeability has decreased or the barrier properties improved is not equivalent to stating that the sealant layer is “substantially gas impermeable”

(b) Claims 1, 6, 10, and 14 have each been amended to recite that the beverage container closure comprises a “gas impermeable” sealant layer. It is the examiner’s position that this phrase fails to satisfy the written description requirement under the cited statute since there does not appear to be a written description requirement of the cited phrase in the application as originally filed, *In re Wright*, 866 F.2d 422, 9 USPQ2d 1649 (Fed. Cir. 1989) and MPEP 2163. Applicant has not pointed to any portion of the specification, and examiner has not found any support for this phraseology in the specification as originally filed.

While page 2, lines 1-7 and 24-26 of the present specification disclose that the sealant layer has improved gas barrier properties and decreased permeability to oxygen and carbon dioxide, this does not provide support to recite that the sealant layer is “gas impermeable”. There

appears to be no disclosure in the specification as originally filed that the sealant layer is gas impermeable.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 6, 10, and 14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claims 1, 6, 10, and 14 each recite that the beverage container closure comprises “gas impermeable” sealant layer and also each recite that the layered montmorillonite clay renders the sealant layer “substantially gas impermeable”. Thus, the scope of the claims is confusing because it is not clear how the sealant is both “gas impermeable” and “substantially gas impermeable”. The former suggests that the sealant layer is completely impermeable to gas while the later, by use of the word “substantially”, suggests that the sealant layer is not completely impermeable to gas, i.e. the sealant layer possesses some degree of permeability to gas. Thus, there appears to be two different recitations regarding the permeability (or impermeability) of the sealant layer in each claim. Clarification is requested.

(b) Claims 1, 6, 10, and 14 each recite that the addition of montmorillonite clay renders the sealant layer “substantially” gas impermeable. The scope of the claims is confusing because

it is not clear what is meant by “substantially”. How much gas can permeate the sealant layer and the layer still be considered “substantially” gas impermeable? Clarification is requested.

(c) Claims 1 and 6 each recite “beverage container closure comprising a gas impermeable sealant layer molded from a melt-processible composition”. The scope of the claims is confusing because it is not clear what is molded from the melt-processible composition –the beverage container closure, the sealant layer, or both.

(d) Claim 10 recites the limitation "said material" in line 6. There is insufficient antecedent basis for this limitation in the claim. Should “said material” be changed to “said polyolefin”?

**Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1, 6, 10, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christiani et al. (U.S. 5,747,560) in view of Barriac (U.S. 4,721,221).

Christiani et al. disclose molded article molded from a melt-processible composition comprising (i) thermoplastic polymer such as polyolefin including polyethylene, polypropylene, ethylene-propylene copolymer, ethylene vinyl acetate copolymer, and ethylene-propylene-diene copolymer as well as poly(styrene)-poly(butadiene)-poly(styrene) and (ii) layered montmorillonite clay having platelets with diameter ranging from 0.005 to 1 micron. There is also disclosed a method for decreasing the gas permeability of the thermoplastic material by using montmorillonite clay as disclosed above (col.5, lines 20-30, col.7, lines 35-41, col.16, lines 41-44, col.17, lines 48-50, col.18, lines 7 and 21-23, col.20, lines 12-13, col.22, lines 2-3, col.24, lines 9-11 and 15-16, and col.25, lines 35-37).

Although there is no explicit disclosure in Christiani et al. of beverage container closure comprising gas impermeable sealant layer, in view of the fact that the composition of Christiani et al. is taught to be especially advantageous to make molded articles (col.24, lines 27-29) and further in view of the fact that Barriac (col.4, lines 15-32) provides evidence that a beverage container closure comprising sealant layer is but one well known example of a molded article, it therefore would have been obvious to one of ordinary skill in the art that the composition of Christiani et al. would have been intrinsically useful to make a beverage container closure comprising sealant layer.

Further, while there is no disclosure in either Christiani et al. or Barriac of gas impermeable sealant layer, it is significant to note that col.24, lines 22-32 of Christiani et al. disclose that the properties of the molding composition can be modified in desired direction and that one of the advantages of the molding composition is decreased permeability. In light of this disclosure, it therefore would have been obvious to one of ordinary skill in the art to modify the permeability of the composition of Christiani et al. in the desired direction, including impermeability as presently claimed, depending on the requirements of the end use of the molded article produced from the composition.

In light of the above, it therefore would have been obvious to one of ordinary skill in the art that the molded article of Christiani et al. would have been intrinsically useful to make a beverage container closure comprising sealant layer and it would have also been obvious to one of ordinary skill in the art to control the permeability of the composition to desired degree of permeability, including impermeability, as presently claimed, and thereby arrive at the claimed invention.

#### **Response to Arguments**

8. Applicant's arguments filed 4/23/04 have been fully considered but they are not persuasive.

Specifically, applicants argue that there is no disclosure in Christiani et al. of gas impermeable sealant layer and further that Christiani et al. teach away from gas impermeability by teaching that the molded article has decreased permeability and thus must necessarily exhibit some permeability in contrast to the present claims which require gas impermeable sealant layer.

However, while it is agreed that there is no explicit disclosure in Christiani et al. of gas impermeable composition, it is the examiner's position that Christiani et al. do not teach away from gas impermeability. Rather, col.24, lines 22-32 of Christiani et al. disclose that the properties of the molding composition can be modified in desired direction and that one of the advantages of the molding composition is decreased permeability. In light of this disclosure, it therefore would have been obvious to one of ordinary skill in the art to modify the permeability of the composition in any desired direction, including impermeability (the ultimate decrease in permeability) as presently claimed depending on the requirements of the end use of the molded article produced from the composition, and thereby arrive at the claimed invention.

Applicants also argue that there is no disclosure in Christiani et al. of beverage container closure comprising sealant layer wherein the sealant layer is molded from polyolefin or base polymeric material and layered montmorillonite clay.

While Christiani et al. disclose molded articles including containers made from composition comprising polyolefin or base polymeric material and layered montmorillonite clay, it is agreed that there is no explicit disclosure in Christiani et al. of beverage container closure comprising sealant layer. This is why Christiani et al. is used in combination with Barriac which teaches that a beverage container closure comprising sealant layer is but one well-known example of a molded article and that such articles are made from polyolefin and ethylene-vinyl acetate.

Applicants argue that there is no motivation to combine Christiani et al. with Barriac given that there is no disclosure or suggestion in Barriac of composition that includes

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thermoplastic base polymeric material and layered montmorillonite clay as presently claimed and disclosed by Christiani et al. However, it is noted that Barriac is not used for its teaching of the composition used to make the beverage container closure or sealant layer. This is already taught by Christiani et al. Rather, Barriac is used to teach that beverage container closure and sealant layer are well known examples of molded articles and therefore, it would have been obvious to one of ordinary skill in the art that the composition of Christiani et al. would have been intrinsically useful to make beverage container closure comprising sealant layer, and thus, one of ordinary skill in the art would have arrived at the claimed invention.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

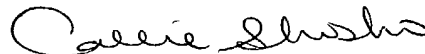
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
7/9/04